

Table 1. Physical Activity Recommendations by National Fitness and Health Groups (1965-1996)

Source	Objective	Type/Mode	Intensity <sup>1</sup>	Endurance Frequency	Duration	Resistance Training <sup>2</sup>
President's Council on Physical Fitness (1965)	Physical fitness	General fitness	Five levels	5 x week	≈ 30 minutes	Selected Calisthenics
American Heart Association Recommendations (1972)	Coronary heart disease prevention	Endurance	70-85% MHR	3-7 x week	15-20 minutes	Not addressed
Young Men's Christian Association (1973)	General health and fitness	Endurance, strength, flexibility	80% VO <sub>2</sub> max	3 x week	40-45 minutes	Not specified
American College of Sports Medicine Guidelines (1975)	Cardiorespiratory fitness	Endurance, strength, flexibility	60-90% VO <sub>2</sub> max; 60-90% HRR	3 x week	20-30 minutes	Not specified
American Heart Association Recommendations (1975)	Secondary prevention in patients with heart disease	Endurance	70-85% MHR	3-4 x week	20-60 minutes	Not addressed
American College of Sports Medicine Position Statement (1978)	Cardiorespiratory fitness and body composition	Endurance	50-85% VO <sub>2</sub> max; 50-85% HRR; 60-90% MHR	3-5 x week	15-60 minutes	Not addressed
US Dept Health, Education, and Welfare -- Healthy People (1979)	Disease prevention / health promotion	Endurance	Moderate / hard	3 x week	15-30 minutes	Not addressed
American College of Sports Medicine Guidelines (1980)	Cardiorespiratory fitness	Endurance, strength, flexibility	50-85% VO <sub>2</sub> max / HRR; 60-90% MHR	3-5 x week	15-60 minutes	Not specified
American College of Sports Medicine Guidelines (1986)	Cardiorespiratory fitness	Endurance, strength, flexibility	50-85% VO <sub>2</sub> max / HRR; 60-90% MHR	3-5 x week	15-60 minutes	Not specified
US Dept of Health and Human Services -- Surgeon General's Report on Nutrition and Health (1988)	Weight control	Endurance	Not specified	≥3 x week	≥20 minutes	Not addressed
US Preventative Services Task Force (1989)	Primary prevention in clinical practice	Not specified, implied endurance	At least moderate	Not specified	Not specified	Not addressed
American College of Sports Medicine Position Stand (1990)	Cardiorespiratory and muscular fitness	Endurance, strength	50-85% VO <sub>2</sub> max; 50-85% HRR; 60-90% MHR	3-5 x week	20-60 minutes	1 set, 8-12 repetitions 8-10 exercises 2 days x week
American College of Sports Medicine Guidelines (1991)	Cardiorespiratory fitness	Endurance, strength, flexibility	40-85% VO <sub>2</sub> max; 55-90% MHR; RPE = 12-16	3-5 x week	15-60 minutes	Not specified
American Association for Cardiovascular and Pulmonary Rehabilitation (1991)	Cardiac rehabilitation	Endurance, strength	Exercise following ACSM (1986) and AHA (1993)	3-5 x week	15-60 minutes	1-3 sets, 12-15 repetitions major muscle groups 2-3 days x week
US Dept of Health and Human Services -- Healthy People 2000 (1991)	Disease prevention / health promotion	Endurance, strength, flexibility	Light / moderate / vigorous	3-5 x week	20-30 minutes	Not specified
American Heart Association Position Statement (1992)	Cardiovascular disease prevention and rehabilitation	Endurance	> 50% VO <sub>2</sub> max	3-4 x week	30-60 minutes	Not addressed
American Heart Association Standards (1992 and 1995)	Coronary heart disease prevention and rehabilitation	Endurance, strength	50-60% VO <sub>2</sub> max; 50-60% HR reserve	≥3 x week	≥30 minutes	1 set, 10-15 repetitions 8-10 exercises, 2-3 days x week
American Association for Cardiovascular and Pulmonary Rehabilitation (1993)	Pulmonary rehabilitation	Endurance	60% HR reserve	3 x week	20-30 minutes	Not addressed
American College of Sports Medicine Position Statement (1993)	Prevention and treatment of hypertension	Endurance, strength	40-70% VO <sub>2</sub> max	3-5 x week	20-60 minutes	Not specified
American Heart Association Position Statement (1993)	Cardiovascular disease prevention and rehabilitation	Moderate intensity integrated into daily routine	Not specified	Not specified	Not specified	Not addressed
American College of Sports Medicine Position Stand (1994)	Secondary prevention in patients with coronary heart disease	Endurance, strength	40-85% VO <sub>2</sub> max; 40-85% HRR; 55-90% MHR	3 x week, nonconsecutive days	20-40 minutes	Not specified
American Heart Association Position Statement (1994)	Cardiac rehabilitation	Endurance and strength training of moderate intensity following other	Not specified	Not specified	Not specified	Not specified
American Association for Cardiovascular and Pulmonary Rehabilitation (1995)	Cardiac rehabilitation	Endurance, strength	> 50% VO <sub>2</sub> max; RPE 12-14	3-5 x week	30-45 minutes	1 set, 10-15 repetitions, major muscle groups 2-3 days x week
American College of Sports Medicine Guidelines (1995)	Cardiorespiratory and muscular fitness	Endurance, strength	40-85% VO <sub>2</sub> max / HRR; RPE 12-16	3-5 x week	12-15 minutes initially: 20-30 minutes for conditioning and maintaining	1 set, 8-12 repetitions 8-10 exercises 2 days x week
American College of Sports Medicine Position Stand (1995)	Prevention of osteoporosis	Strength, flexibility, coordination, cardiorespiratory fitness	Not specified	Not specified	Not specified	Not specified
Agency for Health Care Policy and Research (1995)	Cardiac rehabilitation	Endurance, strength	70-85% MHR	3 x week	20-40 minutes	Not specified
Centers for Disease Control and Prevention / American College of Sports Medicine (1995)	Health promotion	Endurance	Moderate / hard	All or most days	≥30 minutes per day in bouts of at least 8-10 minutes	Not specified
US Dept of Health and Human Services / USDA Guidelines (1995)	Health promotion / disease prevention, weight maintenance	Endurance	Moderate	All or most days	≥30 minutes per day	Not addressed
National Heart, Lung, and Blood Institute Consensus Conference (1996)	Cardiovascular disease prevention for adults and children and cardaic	Endurance	Moderate / hard	All or most days	≥30 minutes per day	Not addressed
US Preventative Services Task Force (1996)	Primary prevention in clinical practice	Endurance, strength, flexibility	Moderate	Most days	30 minutes	Not specified

**Numerical Notes:**  
<sup>1</sup>Key to Intensity Abbreviations:  
HRR = Heart Rate Reserve; MHR = Maximal Heart Rate; RPE = Rating of Perceived Exertion; VO2 max = Maximal Oxygen Uptake  
<sup>4</sup>Resistance Training Explanations:  
qualified

**Adapted from:**  
U. S. Department of Health and Human Services. (1996). *Physical activity and health: A report of the surgeon general.* Atlanta, GA: U. S. Department of Health and Human Services.